What is claimed is:

Claim 1: A method for producing farnesol comprising:

(a) culturing a microorganism selected from the group consisting of Saccharomyces cerevisiae, Schizosaccharomyces pombe, Candida utilis, Candida albicans, Ustilago maydis, Zymomonas mobilis , Staphylococcus aureus and Methylococcus capsulatus, in a fermentation medium to produce a product selected from the group consisting of farnesyl phosphate and farnesol, wherein the action of squalene synthase of said microorganism is reduced; and

(b) recovering said product.

Claim 2: The method of Claim 1, wherein said microorganism is genetically modified to decrease the action of squalene synthase.

Claim 3: The method of Claim 2, wherein said microorganism is further genetically modified to increase the action of HMG-CoA reductase.

Claim 4: The method of Claim 3, wherein the action of HMG-CoA reductase is increased by overexpression of HMG-CoA reductase or the catalytic domain thereof in the microorganism.

Claim 5: The method of Claim 4, wherein said microorganism is further genetically modified to overexpress a protein selected from the group consisting of acetoacetyl Co-A thiolose, HMG-CoA synthase, mevalonate kinase, phosphomevalonate kinase, phosphomevalonate decarboxylase, isopentenyl pyrophosphate isomerase, farnesyl pyrophosphate synthase, D-1-deoxyxylulose 5-phosphate synthase, and 1-deoxy-D-xylulose 5-phosphate reductoisomerase.

Claim 6: The method of Claim 5, wherein the microorganism has been genetically modified to overexpress farnesyl pyrophosphate synthase.

Claim 7: The method of Claim 1, wherein said microorganism is an *erg*9 mutant.

Claim 8: The method of Claim 7, wherein said microorganism comprises a *erg9Δ::HIS3* deletion/insertion allele.

Claim 9: The method of Claim 1, wherein said recovering step comprises recovering said product from said microorganism.

Claim 10: The method of Claim 1, wherein said product is secreted into said fermentation medium by said microorganism and wherein said step of recovering comprises purification of said product from said fermentation medium.

Claim 11: The method of Claim 1, wherein said product is intracellular farnesyl phosphate and farnesol and said step of recovering comprises isolating said farnesyl phosphate and farnesol from said microorganism.

Claim 12: The method of Claim 1, wherein said product is intracellular farnesyl phosphate and said step of recovering further comprises dephosphorylating said farnesyl phosphate to produce farnesol.

Claim 13: The method of Claim 5, wherein said genetic modification to increase the action of a protein comprises transformation of said microorganism with a recombinant nucleic acid molecule encoding said protein, wherein said recombinant nucleic acid molecule is operatively linked to a transcription control sequence.

Claim 14: The method of Claim 4, wherein said genetic modification to increase the action of HMG-CoA reductase comprises transformation of said microorganism with a recombinant nucleic acid molecule that is integrated into the genome of said microorganism.

Claim 15: The method of Claim 1, wherein said farnesyl phosphate is intracellular and said farnesol is extracellular and intracellular, wherein said step of recovering comprises a recovering step selected from the group consisting of recovering said farnesyl phosphate from said microorganism, recovering said farnesol from said fermentation medium and from said microorganism, and a combination thereof.

Claim 16: A method for producing farnesol comprising:

(a) culturing a microorganism selected from the group consisting of Saccharomyces cerevisiae, Schizosaccharomyces pombe, Candida utilis, Candida albicans, Ustilago maydis, Zymomonas mobilis , Staphylococcus aureus and Methylococcus capsulatus, in a fermentation medium comprising a squalene synthase inhibitor, to produce a product selected from the group consisting of farnesyl phosphate and farnesol; and

(b) recovering said product.

Claim 17: The method of Claim 16, wherein the microorganism has been further genetically modified to increase the activity of farnesylpyrophosphate phosphatase.